



# **NCDOT Overview**

Nick Tennyson, Chief Deputy Secretary  
March 4, 2015

# Overview

- Major Functions of DOT
- Board of Transportation
- Highway System Overview
- Construction- Road Building Process
- Operations and Maintenance
- Intermodal

# North Carolina Department of Transportation

- Employs about 12,000 people
  - Positions range from transportation workers and engineers to archaeologists and ferry captains
- Led by the Secretary of Transportation, a member of the Governor's cabinet
- Oversees all aspects of transportation in North Carolina, including:
  - ◇ Highways
  - ◇ Rail
  - ◇ Aviation
  - ◇ Ferries
  - ◇ Public Transit
  - ◇ Bicycle and Pedestrian Transportation
  - ◇ Division of Motor Vehicles
  - ◇ State Ports
  - ◇ Global TransPark

# Board of Transportation

- Works with NCDOT staff members to make decisions about transportation priorities and funding allocations
- Comprised of 19 members; all appointed by the Governor
- Each of the 14 divisions has one representative
- Five at-large members representing:
  - State Ports and Aviation Issues
  - Rural Transportation Issues
  - Environmental Issues
  - Government-Related Finance & Accounting Issues
  - Mass Transit

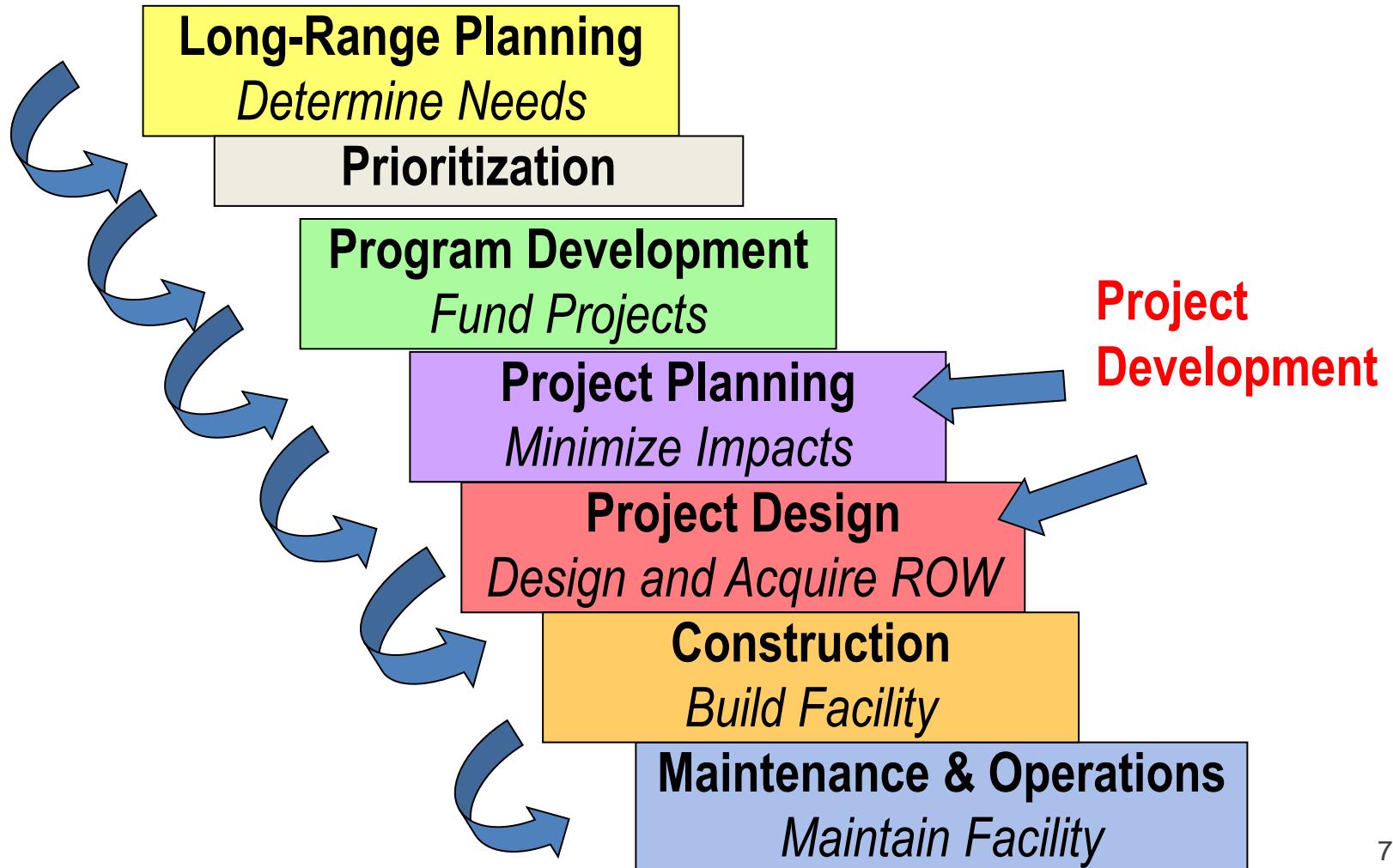
# Board of Transportation

- At least 3 members must be registered voters of a political party other than the political party of the Governor
- No more than 2 members may reside in the same highway division
- The Governor must submit proposed appointees to the Joint Legislative Transportation Oversight Committee for a 30-day review/comment period

# Highway System

- Responsible for 79,500+ mile highway network, comprised of:
  - Interstates – 1,327
  - Primary
    - US routes – 5,566
    - NC routes – 8,170
  - Secondary – 64,522
    - Farm-to-market or local roads
- Responsible for more than 18,000 bridges, culverts and pipes along the highway system

# Transportation Program Life Cycle



# Project Development

- Identify purpose and need of transportation project
- Evaluate route alternatives to minimize impacts to the environment, homes and businesses
- Select preferred alternative
- Complete environmental planning documents
- Determine construction limits



# Typical Preconstruction Times

(from start of planning to contract letting)

Major new location projects — 8 to 10 years

Widening projects — 5 to 8 years

Bridge projects — 1 to 4 years

# Highway Design

- Survey and design highways, bridges and other features, including:
  - Right of way
  - Utilities
  - Drainage systems
  - Retaining walls
  - Lighting
- Goals:
  - Provide cost-effective designs that meet schedule and budget
  - Minimize impacts to the environment
  - Minimize impacts to homes and businesses



# Contract Award

- Prepare project contract information
- Advertise project lettings
- Bids are submitted by contractors
- Bids are reviewed for cost and ensuring bids meet requirements
- By law, contract is awarded to lowest bidder that meets all requirements

# Phases of Construction Work

Surveying

Clearing

Erosion Control

Bottom Drainage

Rough Grading

Bridge Foundations

Top drainage

Fine grading

Base and Pave

Bridge Beams and  
Deck

Guardrail

Markings, Signs,  
Signals

# Construction

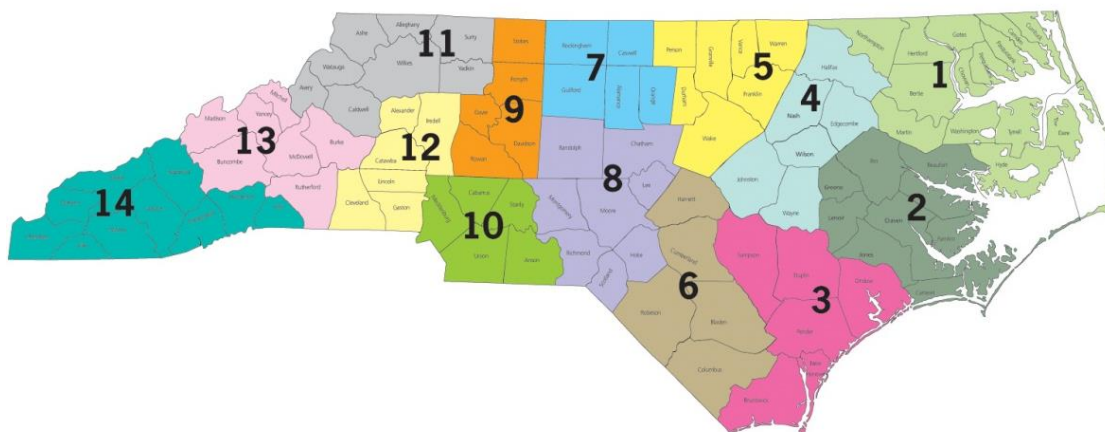
- Provide support for construction contract administration
- Responsible for oversight of approximately 600 active highway-related projects
- Projects are diverse and dynamic
  - Bridges and roads
  - Rest areas
  - Bus terminals
  - Weight stations
  - Communication technologies
- Requires innovation and flexibility

# Typical Project Construction Times

- New Location – 3 ½ - 4 years
- Major Pavement Rehabilitation - 2 ½ - 3 years
- Urban Widening - 2 - 3 years
- Bridge Replacement (low impact) - 6–18 months

# Field Operations

- Under direction of Chief Engineer
- 14 transportation divisions
- 3 primary functions:
  - Construction
  - Operations/Traffic Management
  - Maintenance





# Maintenance and Operations

- Primary and Secondary Maintenance

- Traffic management
- Roadside environmental activities
- Snow and ice removal
- Litter and debris removal
- Drainage installation and improvements
- Pavement markings, sign installation & replacement
- Mowing and vegetation management



- Pavement Preservation

- Contract Resurfacing

- Bridge Program Activities

- Repair, preservation, and replacement



# Rail



- Railroads in North Carolina operate more than 3,300 miles of track
- There are 3,834 at-grade public crossings statewide
  - 70% have signal warning devices (gates and/or flashing lights)
- Two Class I and 21 short line railroads operate in North Carolina, transporting more than 1.6 million carloads of freight each year
- The state-owned *Piedmont* provides passenger service between Charlotte and Raleigh 3 times daily; state-supported *Carolinian* provides service between Charlotte and Raleigh with continuing service to New York City

# Aviation



- Responsible for 3 primary functions:
  - State system planning
  - Airport and aviation system development
  - Operations and maintenance of state aircraft
- Aircraft provide a range of services:
  - Statewide emergency response
  - Aerial photography and spatial information for transportation projects
  - Passenger service
- Commercial and general aviation airports contribute about \$26 billion to the state's economy each year and help create more than 108,000 jobs. 18

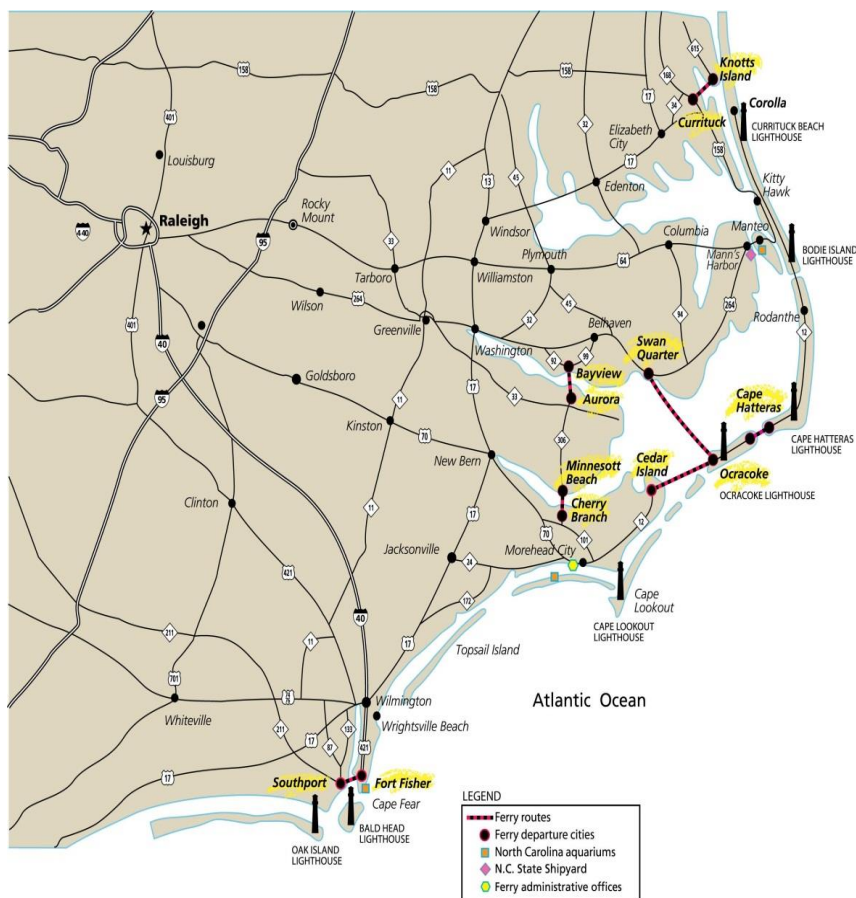
# Public Transportation



- Administer federal and state grants, provides safety and training opportunities, and planning and technical assistance to systems
- Systems are county/municipally owned and provide service in all 100 counties; includes light rail
  - Provided 77.5 million individual trips in 2014
  - Operate 2,398 vehicles
  - Provided 88.9 million miles of service
- 15% ridership increase since 2008
- Systems employ about 5,000 people across the state; \$409 million industry 19



# Ferry



- Largest state-owned system on the east coast; second largest in the nation
- Operate 22 ferries across 7 routes; 3 routes tolled
- Carry about 2 million passengers per year
- Vital in hurricane evacuation and post-storm recovery on Outer Banks

# Bicycle and Pedestrian

- Touches all aspects of bicycling and walking, including:
  - Designing facilities
  - Creating and implementing safety and educational programs and campaigns
  - Fostering multi-modal planning
  - Integrating bicycling and walking into ongoing activities of NCDOT
  - Mapping cross-state bicycle routes



# Division of Motor Vehicles (DMV)

- Registers about 34,500 vehicles per day; 8.8 million vehicles registered in North Carolina
- Conducts more than 8,300 driver license-related transactions daily; 7.4 million licensed drivers in North Carolina
- Oversees administrative hearings, DWI revocations and insurance lapses
- Tracks and audits more than 5.9 million vehicle emissions inspections and more than 3 million safety inspections
- DMV's License and Theft Bureau recovered 911 stolen vehicles valued at \$7.4 million in 2014



# Questions?